23. (NEW) A memory circuit in single-port memory structure having a predetermined memory access speed and a memory access period, comprising: memory cells disposed to store data; and

a circuit arranged to provide predecoding at a speed substantially faster than the predetermined memory access speed, and allowing access to a selected memory cell at least twice during the memory access period, thereby providing dual-port functionality thereby.

- 24. (NEW) The memory circuit of Claim 23, wherein the memory cells are arranged in groups and wherein each of a designated group of memory cells comprises one of a memory row, a memory column, a preselected portion of a memory module, a selectable portion of a memory module, a memory module, and a combination thereof.
- 25. (NEW) In a single-port memory structure having local and global data sensing, local and global location selecting, and memory modules having groups of memory cells and a memory location, and wherein storage of a second datum at a designated memory location is to follow sensing of a first datum at the designated memory location, a method for substantially simultaneously retrieving a first datum from the designated memory location in the memory module and storing the second datum in the redundant memory location, the method comprising:
  - (a) locally selecting the designated memory location from which the first datum is to be retrieved;
    - (b) locally sensing the first datum in the designated memory location;
  - (c) assigning a redundant memory location to represent the designated memory location;
  - (d) globally selecting the redundant memory location for storing the second datum;
  - (e) substantially concurrently with the globally selecting, globally sensing the first datum in the designated memory location;
    - (f) outputting the first datum subsequent to the globally sensing;

- (g) inputting the second datum substantially immediately subsequent to the outputting the first datum;
- (h) locally selecting the redundant memory location for storing the second datum; and
  - (i) storing the second datum in the redundant memory location.
- 26. (NEW) The method of Claim 25, further comprising precharging bitlines coupled with the memory location, prior to locally sensing the first datum.
- 27. (NEW) The method of Claim 26, wherein steps (a) through (i) are completed within one access cycle of the memory structure.
- 28. (NEW) The method of Claim 27, wherein at least the steps of locally sensing, storing the second datum and precharging are completed within one access cycle of the memory structure.
- 29. (NEW) A method for substantially simultaneously retrieving a first datum from a first memory and storing a second datum in a second memory location, wherein both locations are disposed within a single-port memory structure having local and global data sensing, and local and global location selecting, the method comprising:
  - a. locally selecting the first memory location from which the first datum is to be retrieved:
    - b. locally sensing the first datum in the first memory location;
    - c. globally selecting the second memory location;
  - d. substantially concurrently with the globally selecting, globally sensing the first datum at the first memory location;
    - e. outputting the first datum subsequent to the globally sensing;
  - f. inputting the second datum substantially immediately subsequent to the outputting the first datum;
    - g. locally selecting the second memory location; and
    - h. storing the second datum in the second memory location.

- 30. (NEW) The method of Claim 29, further comprising precharging bitlines coupled with the first and the second memory locations, prior to locally sensing the first datum.
- 31. (NEW) The method of Claim 30, wherein steps (a) through (h) are completed within one access cycle of the memory structure.
- 32. (NEW) The method of Claim 31, wherein at least the steps of locally sensing, storing the second datum and precharging are completed within one access cycle of the memory structure.
- 33. (NEW) The method of Claim 29, wherein the first memory location is the same as the second memory location.
- 34. (NEW) A method for providing sequential storage of a first datum in a first memory structure location and a second datum in a second memory structure location within one access cycle of the memory structure, the structure having local and global location selecting, the method comprising:
  - (a) selecting the first memory structure location to which the first datum is to be stored;
  - (b) precharging bitlines coupled with the memory cells at the first memory structure location;
    - (c) storing the first datum in the first memory structure location;
  - (d) selecting the second memory structure location to which the second datum is to be stored;
  - (e) substantially concurrently with the selecting the second memory structure location, precharging bitlines coupled with the second memory structure location; and
    - (f) storing the second datum in the second memory structure location.
- 35. (NEW) The method of Claim 34, wherein (a) through (f) are completed within one access cycle of the memory structure.